



**ISTIC**  
INTERNATIONAL SCIENCE, TECHNOLOGY AND  
INNOVATION CENTRE FOR SOUTH-SOUTH  
COOPERATION UNDER THE AUSPICES OF UNESCO



Supported by



Malaysian Service  
Providers Confederation



# Training Workshop on MAINTENANCE of INFRASTRUCTURE

30 March – 2 April 2015  
Kuala Lumpur, Malaysia

*Celebrating  
Malaysia's Chairmanship of ASEAN 2015*



### Organized by:

**International Science, Technology and Innovation Centre  
for South-South Cooperation under the Auspices of UNESCO (ISTIC)**  
**Malaysian Highway Authority (MHA)**  
**Construction Industry Development Board Malaysia (CIDB)**  
**Institution of Engineers, Malaysia (IEM)**  
**Master Builders Association Malaysia (MBAM)**

### Supported By

**United Nation Education, Scientific and Culture Organization (UNESCO)**  
**Malaysian Service Providers Confederation (MSPC)**  
**Persatuan Syarikat-Syarikat Konsesi Lebuhraya Malaysia (PSKLM)**

## **INTRODUCTION**

Maintenance is used as a generic term to include planned maintenance, repair, refurbishment and provision for replacement of the structures. The goal of infrastructure maintenance is to sustain the life of major assets. When maintenance is provided too soon or too late, it will incur unnecessary costs, compromise safety and the asset's economic life span. Maintenance of existing infrastructure should not be seen as secondary importance to the apparently more attractive option of new infrastructure.

Maintaining infrastructure usually comes at a cost, but this is a prudent investment which saves significantly in the medium to long term. It can promote economic return; create jobs and human capital development.

There are other significant costs associated with inadequate maintenance such as consequent breakdowns. These costs could include loss of production and revenue, health risks, injury or loss of life, and the cost of alternative measures needed during breakdowns.

Maintenance norms and standards are in the development stage (e.g. roads, water, sanitation, etc). Best and good practices for planning, designing and implementing maintenance programmes will be highlighted. Based on maintenance standards, budgeting norms will be developed to facilitate accurate long-term maintenance budget forecasting, taking into account the type, age and condition of the infrastructure.

The programme covers essential legislative framework, assessment needs, planning, execution, including financial planning and budgetary control of infrastructure maintenance.

## **OBJECTIVE**

The objective of the workshop is to expose participants to the latest trend, technology and advances for the maintenance of various infrastructures appropriate for ASEAN and South-South countries. The workshop will include site visits to a smart tunnel, express highways, eco- friendly residential project and high rise building.

## **THE OUTCOMES OF THE TRAINING WORKSHOP**

- All agreeing on the benefits of planned maintenance;
- Have the basic knowledge and motivation to promote the maintenance culture for its seamless implementation,
- Essential insights into the trend, technology and financing for maintenance of major infrastructures;
- Become members of the ISTIC alumni for infrastructure maintenance, and
- Be aware of the engineering related opportunities in the host country.

## **DURATION OF THE TRAINING WORKSHOP**

The training workshop will be held for three and half days from **30 March – 2 April 2015**

## **VENUE OF TRAINING WORKSHOP**

### **RHR Hotel @ Uniten**

Bangi, Selangor

Malaysia

## **PARTICIPANTS**

A total of **20** participants from ASEAN and developing countries will be selected to attend this training workshop with an equal number from Malaysia. The combination of participants from ASEAN, South-South countries and the host will allow for an exchange of knowledge, ideas and experiences as well as opportunities for discussions, networking and possible collaboration.

There will be a maximum of **2 participants** from each ASEAN country who are involved in infrastructure maintenance, preferably one each from the Government and private sector.

## **WHO SHOULD ATTEND**

Participants who possess the following:

Have been involved in maintenance of infrastructure in their home countries and organisations, a good command in English and in good health.

## **COSTS**

For foreign participants, the organizers will bear the registration fee and local hospitality (accommodation, meals and local transport) for the duration of the workshop. However, they will have to pay for their return airfare and visa fee.

## **PROGRAMME**

<b>MONDAY</b>	<b>30 MARCH 2015</b>
0800 – 0900 hrs	<b>REGISTRATION</b>  <b>ARRIVAL OF VIPS AND GUESTS</b>  <b>OPENING CEREMONY</b>
0900 – 0915 hrs	Welcoming Speech by Academician YBhg. Dato Ir. Lee Yee Cheong, Chairman of ISTIC Governing Board
0915 – 0930 hrs	Official Opening by Dato' Sri Haji Fadillah Haji Yusof <b>(TBC)</b> , Minister / Deputy Ministry Of Work Malaysia
0930 – 1000 hrs	<b>Keynote Lecture 1</b> <i>Institutional Framework for Sustainable Infrastructure</i> By : <b>YBhg. Dato' Ir. Hj. Ismail bin Md. Salleh</b> <b>Director General of MHA</b>
1000 – 1010 hrs	Group Photo
1010 – 1030 hrs	Morning Tea Break
1030 – 1200 hrs	<b>Panel Session 1</b> Chairman: Ir. Choo Kok Beng <b><i>Sustainable Infrastructure</i></b> Panel Speaker : <b>En. Mahdan Ahmad</b> Malaysia Highway Authority <i>An Overview on the development of sustainable highways in Malaysia</i>  Panel Speaker : <b>Ir. Norhisham bin Mohd Ghazali</b> Department of Irrigation and Drainage Malaysia <i>Smart tunnel</i>  Panel Speaker : <b>Ir. Al- Khairi Mohd. Daud</b> <i>Hospital Maintenance</i>  Questions and Answers Session
1200 – 1300 hrs	<b>Lunch</b>
1300 – 1600 hrs	Technical Visit 1 Visit to Smart Tunnel
1600 – 1730 hrs	Evaluation and Review of the Technical Visit <b>End of Day 1</b> <b>Tentative: Dinner n Discussion</b>

**TUESDAY**

**31 MARCH 2015**

0900 – 1000 hrs

**Keynote Lecture 2**

***Developing a Preventive Maintenance Culture***

by Academician Dato Ir. Lee Yee Cheong

1000 – 1030 hrs

**Morning Tea Break**

1030 – 1200 hrs

**Panel Session 2**

**Chairman:** Ir. Mohd Saleh bin Santhiman  
Deputy Director General, Malaysia Highway Authority

***Highway and Road Inspection and Maintenance  
(Financial, Management and Maintenance)***

Panel Speaker : Ir. Abdullah bin Hashim ( Malaysia)

Panel Speaker : from PLUS (Malaysia)

Panel Speaker : from OPUS(Malaysia)

**Questions and Answers Session**

1200 – 1300 hrs

**Lunch**

1300 – 1600 hrs

**Technical Visit 2**

Highway Inspection - Rest and Service Area  
(RSA Dengkil North Bound)

1600 – 1730 hrs

Evaluation and Review of the Technical Visit

**End of Day 2**

**Tentative: Dinner n Discussion (TBC)**

**WEDNESDAY 1 APRIL 2015**

0900 – 1000 hrs **Keynote Lecture 3**

***Planning, Financing and Maintenance of Water Resources Infrastructure***

by Dr. Shahbaz Khan

*UNESCO Regional Science Bureau for Asia and the Pacific Cluster  
Office to Brunei Darussalam, Indonesia, Malaysia, the Philippines,  
and Timor Leste*

1000 – 1030 hrs **Morning Tea Break**

1030 – 1200 hrs **Panel Session 3**

**Chairman:** Mr. Mathew Tee  
President, Master Builders Association Malaysia  
***Property Maintenance***

Panel Speaker : Dato Ir Fong Tian Yong  
The Institution of Engineers Malaysia  
*Legislation*

Panel Speaker : from The Institution of Engineers Malaysia  
*M&E System*

Panel Speaker : from construction Industry Development Board  
*Maintenance of IBS Buildings*

Questions and Answers Session

1200 – 1300 hrs **Lunch**

1300 – 1600 hrs **Technical Visit 3**

Master Builders Association Malaysia's Property Project  
**(Setia Eco Shah Alam)**

1600 – 1730 hrs Evaluation and Review of the Technical Visit

**End of Day 3**

**Tentative: Dinner n Discussion (TBC)**

**THURSDAY 2 APRIL 2015**

0900 – 1100 hrs **Panel Session 4**

**Chairman:** Ir. Choo Kok Beng  
***Financing For Infrastructure Maintenance***

Panel Speaker : from City hall

Panel Speaker : from Master Builders Association Malaysia/  
**REDHA**

Panel Speaker : from The Institution of Engineers Malaysia /  
Department of Works

Panel Speaker : from Malaysia Highway Authority/  
**Concessionaire**

1000 – 1030 hrs **Morning Tea Break**

1030 – 1200 hrs **Chairman: Ir. Choo Kok Beng**

**Summing Up and Feedback**

1200-1300 hrs Certificate Presentation and Closing (**Prepared by ISTIC**)

1300 hrs **Lunch and End of Event**

## **ORGANISERS**

### **International Science, Technology and Innovation Centre for South-South Cooperation under the Auspices of UNESCO (ISTIC)**



**ISTIC**  
INTERNATIONAL SCIENCE, TECHNOLOGY AND  
INNOVATION CENTRE FOR SOUTH-SOUTH  
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The creation of the International Science, Technology and Innovation Centre for South-South Cooperation under the Auspices of UNESCO (ISTIC) is a follow up of the Doha Plan of Action which has been adopted by the Head of States and Government of the Group of 77 and China, during

the meeting in Doha, Qatar, from 12 to 16 June 2005 on the occasion of the Second South Summit of the Group of 77.

The Summit urged UNESCO to develop and implement a programme for South-South cooperation in science and technology with the objective of facilitating the integration of a developmental approach into national science and technology and innovation policies, capacity building in science and technology through providing policy advice and exchange of experience and best practices, and creating a problem solving network of centres of excellence in developing countries as well as supporting the exchange of students, researchers, scientists and technologists among developing countries.

ISTIC will act as an International Platform for South-South Cooperation in Science, Technology and Innovation and make use of the network of the G77 plus China and the Organization of the Islamic Conference (OIC). The overall goal of ISTIC is to increase the capacity for management of science, technology and innovation throughout developing countries. ISTIC Secretariat is hosted by Academy of Sciences Malaysia (ASM) for five years before making ISTIC an autonomous organization.

#### **Contact**

#### **International Science, Technology and Innovation Centre for South-South Cooperation under the Auspices of UNESCO (ISTIC)**

902-4, Jalan Tun Ismail

50480 Kuala Lumpur

Malaysia

Tel: +603-2698 4572

Fax: +603-2698 4549

Email: [info@istic-unesco.org](mailto:info@istic-unesco.org)

Website: [www.istic-unesco.org](http://www.istic-unesco.org)



## **MALAYSIAN HIGHWAY AUTHORITY**



Malaysian Highway Authority (MHA) is a statutory body which was established on October 24, 1980 in accordance with Act 231 (Corporation 1980). The Highway Authority of Malaysia was established to supervise and execute the design, construction, regulation, operation and maintenance of inter-urban highways, to impose and collect tolls, to enter into contracts and to provide for matters connected there-with.

The establishment of the Authority was to plan, design, develop, manage and administer a network of modern highways equipped with sufficient facilities for the purpose of providing a fast, safe and efficient transportation system on a national scale, connecting all major towns and their surrounding with potential for economic, cultural, social development and national unity and enabling an effective inter-urban public road transport system throughout the country besides to enhance employee skills and expertise through training in all of highway development and maintenance.

In additional, with reference to Act 231, the Highway Authority of Malaysia (Incorporation) Act 1980, the roles of the Authority also to supervise and execute the design, construction and maintenance of highways as determined by the Federal Government, to supervise and execute the design, construction and maintenance of rest and service areas and other facilities that may be deemed necessary along highways, to collect toll from the users of highway and other dues from facilities along highways to plan and carry out research to ensure efficient utilization of highways and other facilities along highways; and generally, to do everything for the betterment and proper use of highways and other facilities along highways.

However, after the National Privatisation Policy was introduced in 1983, LLM role as outlined by Act 231, has changed, from a body which is solely responsible for the toll, to be a body responsible for regulating the development and management of toll highways in Malaysia. It is to ensure that the highways concessionaires always providing good quality, safe and comfortable highways to the users.

### **Contact**

#### **Malaysian Highway Authority (MHA)**

Wisma Lebuhraya, KM. 6, Jalan Serdang –Kajang  
43000, Kajang, Selangor

Malaysia

Tel: 603-8737300/87383000

Fax: 603-87373555

Website: [www.llm.gov.my](http://www.llm.gov.my)

## **Institution of Engineers, Malaysia (IEM)- To be confirmed by IEM**



The Institution of Engineers, Malaysia better known as the IEM. It is a professional learned society serving more than 16,000 members in Malaysia, overseas and the communities in, which they work. It was formed in 1959 and was admitted a member of the Commonwealth Engineers Council in 1962. The Institution is a qualifying body for professional engineers in Malaysia.

With a membership of close to 24,094 engineers and an estimated annual growth rate of 10%, IEM is one of the largest professional body in Malaysia.

The Corporate member of the Institution can apply to the Board of Engineers, Malaysia (which is a registration body) for registration as a Professional Engineer, which will entitle him to set up practice. The qualification standards are determined by the Council of the Institution.

The Institution is one of the few professional engineering institutions in the world, which represents all disciplines of the profession, and is thus able to take a broad view of the professional scene.

### **Vision**

The Institution of Engineers, Malaysia aims to be the premier professional Organisation pivotal achieving Vision 2020.

### **Mission**

IEM shall

- promote sound professional engineering practice in support of the socio-economic development objectives of the nation.
- service the needs and interests of its members and the public and uphold the social standing image of the engineering profession.
- contribute towards nation building and shall strive to enhance society's consciousness of science an technology.

### **Functions**

IEM is a society established to promote and advance the Science and Profession of Engineering in any or all its disciplines and to facilitate the exchange of information and ideas related to Engineering.

### **Objectives of The Institution**

The objects of the Institution as set out in the Constitution shall include the following:

- to hold meetings, exhibitions and visits, and such other activities as The Institution may deem incidental or conducive to the promotion or attainment of the profession of engineering.
- to raise the character and status and advance the interests of the profession of engineering and those engaged therein;

- to promote honourable practice. and professional etiquette among members of The Institution;
- to communicate to members information on all matters affecting the profession of engineering and to print, publish, issue and circulate such publications as may seem conducive to any of the objects of the Institution; and
- to do such other things as the Institution may think incidental or conducive to the attainment of the objects of The Institution

## **Contact**

### **The Institution of Engineers, Malaysia (IEM)**

Bangunan Ingenieur, Lot 60/62,  
Jalan 52/4, Peti Surat 223 (Jalan Sultan),  
46720 Petaling Jaya,  
Selangor Darul Ehsan, Malaysia.  
Tel: (603) 79684001  
Fax: (603) 79577678  
Email: [sec@iem.org.my](mailto:sec@iem.org.my)  
Website: [www.myiem.org.my](http://www.myiem.org.my)

## **CONSTRUCTION INDUSTRY DEVELOPMENT BOARD**



**“Understand The Past, Conquer The Present, Shape The Future”**

The Construction Industry Development Board was established under the Construction Industry development Board Act (Act 520) to develop the capacity and capability of the construction industry through enhancement of quality and productivity by placing great emphasis on professionalism, innovation and knowledge in the endeavour to improve the quality of life.

### **Vision**

Together we develop the Malaysian Construction Industry towards Global Competitiveness.

### **Functions**

CIDB is to undertake the following functions related to the construction industry:-

- To promote and stimulate the development, improvement and expansion of the construction industry;
- To advise and make recommendation to the Government on matters related to the construction industry;
- To promote, stimulate and undertake research in matters relating to the construction industry;
- To promote, stimulate and assist in the export of service relating to the construction industry;
- To provide consultancy and advisory services with respect to the construction industry;
- To promote quality assurance in the construction industry;
- To encourage the standardization and improvement of construction techniques and materials;
- To initiate and maintain a construction industry information system;
- To provide, promote, review and coordinate training programmes organized by public and private construction training centres for skilled construction workers and construction site supervisors;
- To accredit and register contractors including to cancel, suspend or reinstate the registration of any registered contractors; and
- To accredit and certify skilled construction workers and construction site supervisors.

### **Contact**

#### **Construction Industry Development Board Malaysia**

Level 10, Menara Dato' Onn,

Putra World Trade Centre,

No 45, Jalan Tun Ismail

50480 Kuala Lumpur

Tel: 03-4047 7000 Fax : 03-4047 7070

Website: <http://www.cidb.gov.my>

## **MASTER BUILDERS ASSOCIATION MALAYSIA – To be Confirmed by MBAM**



Founded in 1954 by the late Tan Sri Dato' Low Yat, the Master Builders Association Malaysia (MBAM) plays an important role in the development and advancement of the construction industry. For the past few decades or so, we have represented Malaysia's construction industry during various key phases on its path to success. Dedicated towards promoting and developing the construction industry in Malaysia, MBAM has evolved into a cohesive umbrella organisation. We have earned international recognition through our affiliations with the International Federation of Asian and Western Pacific Contractors Association (IFAWPCA) and the ASEAN Constructors Federation (ACF). We have also successfully hosted the 20<sup>th</sup> and 29<sup>th</sup> IFAWPCA Conventions in 1983 and 1998 respectively.

In 1985/86 we successfully negotiated unreasonable price increases for steel bars, cement and glass, obtaining a concession for the supply of steel bars. During this period we also amended the JKR contract form to adopt the 'Fluctuation Clause' and allowed direct transfer of registration for contractors from JKR to PKK in 1987 without having to observe the new government registration ruling at the time. Consequently we organized the import of 30,000 bags of cement for members in 1962. Similar exercises were carried out in 1982 and 1995 to battle the effects of shortages.

1998 proved to be an important milestone in MBAM history, in that the Registrar of Societies approved its new constitution and by-Laws, providing greater scope of participation in membership. This allowed the creation of Associate Members, offering membership to 140 entities directly and indirectly linked to the construction industry. This includes specialist sub-contractors, building material suppliers, manufacturers, trading companies and insurance brokers, further expanding MBAM's already extensive network of members.

With 140 linkages, extensive experience and impressive local and international presence, MBAM is well set to effectively represent a single unifying voice to the relevant government authorities and various professional bodies.

### **Contact**

#### **Master Builders Association Malaysia**

Website: <http://www.mbam.org.my>

# APPLICATION FORM

(Typewritten or blocked letters)

<b>FOR OFFICIAL USE ONLY</b>		Please affix latest passport photograph
Reference No:		
Received:		
Checked:		
Title of Course: <p style="text-align: center;"><b>Training Workshop on Maintenance of Infrastructure</b></p>	Date, duration & venue of course: <p style="text-align: center;"><b>30 March - 2 April 2015 Kuala Lumpur, Malaysia</b></p>	

## 1. PERSONAL PARTICULARS:

Family name (surname):	Date of Birth: (Date/Month/Year)
First name:	Nationality: (Citizenship)
Other given names:	Gender: (Male/ Female)
City and country of birth:	Marital status: (Single/ Married)
Passport No:	Designation : Prof./ Dr / Mr / Mrs / Ms

## 2. COMMUNICATION AND MAILING ADDRESS

Applicant's Office Address:			
Email address:			
Office Phone No:		Mobile No:	
Office Fax No:			
Person to be contacted in case of emergency (name, telephone and address):			

### 3. EDUCATION

Name of institution and place of study	Major field of study:	Years of study	Degree

### 4. EMPLOYMENT RECORD

A. Current Post:			B. Previous Post:		
Employer:			Employer:		
Duration of service:	From	To	Duration of service:	From	To
Title of post:			Title of post:		
Current monthly salary(US dollars):			Monthly salary (US dollars):		
Name of supervisor and title:			Name of supervisor and title:		
Type of organisation: Government/ Semi-Government/ Private/ NGO			Type of organisation: Government/ Semi-Government/ Private/ NGO		
Main functions of organisation:			Main functions of organisation:		
Total number of employees in organisation:			Total number of employees in organisation:		
Description of your current work including your responsibilities:					
<p><i>*Please use supplementary pages if necessary</i></p>					

## 5. REASONS FOR APPLYING THIS TRAINING WORKSHOP

Please briefly state the reasons for applying this training workshop and how you hope to benefit from this programme

Have you participated in any ISTIC training programmes before: YES/ NO  
If yes;

Name of programme	Date

## 6. CERTIFICATION OF ENGLISH LANGUAGE PROFICIENCY

	Excellent	Good	Fair	Remarks
Listening				
Speaking				
Writing				
Reading				
Mother tongue:				:
Language test administered by				:
Title				:
Address				:
Telephone No				:
Email address				:
Date and Signature				:



## 7. DECLARATION

Have you ever been convicted by a Court of Law of any country? Yes/ No  
If yes, please give brief details:

I certify that my statements in answer to the foregoing questions are true, complete and correct to the best of my knowledge and belief.

If accepted to the training workshop, I undertake to:

- i) carry out such instructions and abide by such conditions as may be stipulated by both the nominating government and the host government in respect of this course of training;
- ii) follow the course of study or training, and abide by the rules of the institution in which I undertake to study or train;
- iii) refrain from engaging in political activities, or any form of employment for profit or gain;
- iv) submit any progress reports which may be prescribed; and
- v) return to my home country promptly upon the completion of my course of studies or training.

I fully understand that if I am granted an award it may be subsequently withdrawn if I fail to make adequate progress or for other sufficient cause determined by the host Government.

Signature of Application : \_\_\_\_\_

Name : \_\_\_\_\_

Date : \_\_\_\_\_

**8. OFFICIAL DECLARATION (to be completed by the Head of Department)**

The Government / Organisation of

.....  
nominates

.....  
(name of applicant)

For the training workshop under the International Science, Technology and Innovation Centre for South-South Cooperation (ISTIC) and certifies that:

- i) all information supplied by the nominee is complete and correct;
- ii) the nominee had adequate knowledge and was appropriately tested for English Language proficiency.

Remarks:

.....

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Signature of responsible Head of Department)

\_\_\_\_\_  
(Designation)  
Official seal/ stamp

Address of Department/ Ministry

\_\_\_\_\_  
Office telephone no:

Office fax no:

Date:

Email address:

**Note: INCOMPLETE AND/ OR UNENDORSED FORMS WILL NOT BE PROCESSED**

## **APPLICATION AND ENQUIRIES**

All applicants are required to complete the prescribed application form and submit the completed form to the following address:

### **Secretariat - Training Workshop on Maintenance of Infrastructure**

ISTIC,

c/o Academy of Sciences Malaysia,

902- 4, Jalan Tun Ismail,

50480 Kuala Lumpur,

Malaysia.

Tel: +603-2694 9898

Fax: +603-2698 4549

Email: [info@istic-unesco.org](mailto:info@istic-unesco.org)

Website: [www.istic-unesco.org](http://www.istic-unesco.org)

## **CLOSING DATE OF APPLICATIONS**

All applications should be submitted to the ISTIC secretariat office before or by **27 February 2015**

ISTIC will inform the successful applicants to the training workshop not later than **6 March 2015**. Applicants who do not receive word within this date are rendered unsuccessful.

Application form also can be downloaded from [www.istic-unesco.org](http://www.istic-unesco.org)